

Duchesne City

Community Transportation Plan



DRAFT REPORT
May 2005
Prepared By
UDOT Planning Section
4501 South 2700 West
Salt Lake City, Utah 84114-3600



ate of Utah

DEPARTMENT OF TRANSPORTATION

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Governor

GARY R. HERBERT
Lieutenant Governor

May 25, 2005

Mayor Clint Park
Duchesne City
165 South Center Street
Drawer 974
Duchesne, Utah 84021

Dear Mayor Park:

Attached is a copy of the *Draft* Community Transportation Plan (CTP) for Duchesne City. This CTP is a tool to help guide transportation decisions in your community, which will help meet the transportation visioning discussed during the public meetings held May 17th and 18th, 2005.

Many projects were developed during the public meetings, and local priorities established for several projects while developing the CTP. This project list will help the city develop an improvement program addressing your unique transportation issues. We are forwarding projects and comments for the state highway system, which are highway operations based, to the appropriate Utah Department of Transportation (UDOT) Regional Office so they may be addressed as priorities allow. In the meantime, UDOT will be using the list of projects identified for State Routes in our Long Range Planning Process. The Statewide Long Range Transportation Plan (LRP) identifies needs on the state highway system, from which projects are selected to be included in our Statewide Transportation Improvement Plan (STIP).

The next step in the Community Transportation Plan process is for Duchesne City to garner appropriate public involvement through your established public comment procedure. Then the CTP should be sent before the Duchesne City Commission for approval. It is important to restate that a CTP is a living document that changes as your County changes. We encourage you to revise the CTP as frequently as necessary to meet Duchesne City's needs.

Thank you again for allowing us to help you develop your Community Transportation Plan. We always value public input regarding the state highway system. Duchesne City has provided us valuable insight for our Statewide Long Range Planning Process.

Sincerely,

John Quick, P.E.
Engineer for Transportation Planning

Encl

Duchesne City

Community Transportation Plan

Mayor Clint Park

City Council Paul L. Tanner
Nancy Wager
Darwin McKee
Norma Mecham
Yordis Nielsen

City Engineer..... Jones & DeMille
Engineering

City Recorder..... Diana Miller

Street Supervisor..... Richard Ivie

Table of Contents

1. Introduction

- 1.1. Background
- 1.2. Study Need
- 1.3. Study Purpose
- 1.4. Study Area
- 1.5. Study Process

2. Existing Conditions

- 2.1. Land Use
- 2.2. Environmental
- 2.3. Socio-Economic
- 2.4. Functional Street Classification
- 2.5. Bridges
- 2.6. Traffic Counts
- 2.7. Traffic Accidents
- 2.8. Bicycle and Pedestrian
 - 2.8.1. Biking/Trails
 - 2.8.2. Pedestrians
- 2.9. Public Transportation
- 2.10. Freight
- 2.11. Aviation Facilities and Operations
- 2.12. Revenue
 - 2.12.1. State Class B and C Program
 - 2.12.2. Federal Funds
 - 2.12.3. Local Funds
 - 2.11.4 Private Sources

3. Future Conditions

- 3.1. Land Use and Growth
 - 3.1.1. Population and Employment Forecasts
 - 3.1.2. Future Land Use
- 3.2. Traffic Forecast

4. Planning Issues and Guidelines

4.1. Guidelines and Policies

4.1.1. Access Management

4.1.1.1. Definition

4.1.1.2. Access Management Techniques

4.1.1.3. Where to Use Access Management

4.1.2. Context Sensitive Solutions

4.1.3. Recommended Roadway Cross Sections

4.2. Bicycles and Pedestrians

4.2.1. Bicycles/Trails

4.2.2. Pedestrians

4.3. Enhancement Program

4.4. Transportation Corridor Preservation

4.4.1. Definition

4.4.2. Corridor Preservation Techniques

4.4.2.1. Acquisition

4.4.2.2. Exercise of Police Powers

4.4.2.3. Voluntary Agreements and Governmental Inducements

5. Transportation Improvement Projects

5.4. Current State Transportation Improvement Program (STIP)

5.5. Recommended Projects

5.6. Revenue Summary

5.6.2. Federal and State Participation

5.6.3. City Participation

5.7. Other Potential Funding

FIGURES, CHARTS & TABLES

FIGURES

- F1-1** STUDY AREA MAP
- F1-2** STUDY VICINITY MAP
- *F2-1** ZONING MAP
- F2-2** FUNCTIONAL CLASSIFICATION MAP
- F2-3** BRIDGE SUFFICIENCY MAP
- F2-4** STATE ROADS CRASH RATES MAP
- F3-1** AVERAGE ANNUAL DAILY TRAFFIC YR 2002; YR 2030
- F4-1** SUGGESTED TYPES OF CROSS-SECTIONS

CHARTS

- C2-1** POPULATION
- C2-2** DECENIAL POPULATION CHANGE
- C2-3** POPULATION GROWTH RATE
- C2-4** EMPLOYMENT GROWTH RATE
- C2-5** EMPLOYMENT OCCUPATION SECTORS
- C2-6** ANNUAL AVERAGE TRAFFIC
- *C2-7** MONTHLY ADT
- *C2-8** DAILY ADT
- *C2-9** HOURLY ADT

TABLES

- T2-1** BRIDGE SUFFICIENCY RATINGS
- T2-2** AVERAGE ANNUAL DAILY TRAFFIC
- T2-3** CRASH DATA
- T5-1** TRANSPORTATION NEEDS & COST ESTIMATES

* If available for this study

1. Introduction

1.1. Background

The community of Duchesne is located just above the junction of the Strawberry and Duchesne rivers in the Uintah Basin of northeastern Utah. It was first identified as a potential town site by Father Escalante when the Dominguez-Escalante expedition camped near the present-day town 18 September 1776 while on their epic journey. Duchesne is strategically located not only due to its location at the junction of the rivers but it is also at the mouth of Indian Canyon, the major route into the Basin through the Tavaputs Plateau from Price.

The town came into being in 1905 when the United States government opened the region to homesteading under the Allotment Act. The land that forms all of Duchesne County and western Uintah County had formerly belonged to the Ute Indians as part of their reservation. A.M. Murdock, an Indian trader at Whiterocks, obtained permission from the government to set up a trading post at the site that became Duchesne City. With the assistance of several other men, he set up a large circus tent for a general store and trading post. Government surveyors laid out the streets and the survey was accepted by the government on 18 October 1905. Other settlers soon pitched their tents and built pioneer dwellings that were replaced over the next months and years with more modern buildings for homes and businesses.



The town was originally called Dora, after Murdock's baby daughter. This name was replaced for a short time by the name Theodore, in honor of President Theodore Roosevelt. But when town to the east adopted the name of Roosevelt, it was thought that two towns in the same county named for the same president would be too confusing for mail delivery. The name Duchesne was utilized for the new community. The name Duchesne is taken from the name of

the river that runs through town and was likely named by fur trappers in the 1820s in honor of Mother Teresa Duchesne founder of the School of the Sacred Heart near St. Louis, Missouri.

On 1 January 1915 the eastern portion of Wasatch County was split off to form Duchesne County; by a vote of county citizens, Duchesne City became the county seat. Today Duchesne is a community of approximately 1,200 people. It hosts four chapels (two LDS, a Baptist, and a Catholic), two schools (an elementary and a high school/junior high), several businesses and the county offices. For several years, work on the Central Utah Project boosted the community's population and business; a park and a bowling alley were built to make the city more attractive for construction workers. However, in the mid-1980s the dam projects were completed and Duchesne's population declined by several hundred people. The economic base of the community is presently centered in farming and oil industry. As county seat, Duchesne's major celebration is the annual county fair held in August. Due to the late date of settlement of the community, even at the present date several of the older citizens remember coming into the region as pioneers as children with their families.

This information was provided from www.onlineutah.com in an article written by John D. Barton

1.2. Study Need

The City of Duchesne has seen a 7.65% population increase within the last decade after a (-22.0%) population decrease the decade before. From 1960 to 2000, the population has increased 182.86%. The City of Duchesne has recently shown a small increase in population. A well-established transportation plan is needed to provide direction for continual maintenance and improvements to Duchesne City's transportation system.

Duchesne City has an adopted a General Plan. The Duchesne City General Plan briefly describes the transportation needs of this area. With the aging infrastructure of the transportation system and the need for system improvements, a more extensive transportation plan is necessary for Duchesne City and the surrounding area.

Some of the major transportation issues around the State are as follows:

- Safety
- Railroad crossings
- Trails (bicycle, pedestrian, & OHV)
- Signals
- City interchange aesthetics
- Connectivity of roadways
- Property access
- Truck traffic
- Alternate routes
- Speed limits

Duchesne City recognizes the importance of building and maintaining safe roadways, not only for the auto traffic but also for pedestrians and bicyclists.

1.3. Study Purpose

The purpose of this study is to assist in the development of a Community Transportation Plan for Duchesne City. This plan could be adopted by Duchesne City as a companion document to the city's General Plan. With the Community Transportation Plan in place the city can qualify for grants from the State Quality Growth Commission.

The primary objective of the study is to establish a solid Community Transportation Plan to guide future developments and roadway expenditures. The plan includes two major components:

- Short-range action plan
- Long-range transportation plan

Short-range improvements focus on specific projects to improve deficiencies in the existing transportation system. The long-range plan will identify those projects that require significant advance planning and funding to implement and are needed to accommodate future traffic demand within the study area.

1.4. Study Area

The study area includes Duchesne City, and land adjacent to it that is in Duchesne County. A general location map is shown in Figure 1-1. A more detailed map of the study area and city limits is shown in Figure 1-2. The study area was developed by Duchesne City and approved by the Duchesne City Community Transportation Plan Technical Advisory Committee.



The roadway network within the study area includes US-40, US-191, SR-87 and SR-311. Each of these roadways provides a vital function to Duchesne City proper and also access to adjacent municipalities. These roadways along with the local road network are shown in Figure 1-2.

1.5. Study Process

The study, which began in May 2005, is proceeding as a cooperative effort between Duchesne City, UDOT, and local community members. It is being conducted under the guidance of Duchesne City Officials. The following individuals participated in the initial meetings to provide input used to create this document. This group listed below will be referred to as the Technical Advisory Committee or “TAC” for this document.

Clint Park
WR. Rod Harrison
Nancy Wager
Paul L. Tanner
Richard Ivie
Joe F. Williford
Grace Roy
Mike Rowley

Mayor
Duchesne County Commission
City Council
City Council
Duchesne City Streets Superintendent
DUWTP Manager
Resident
Resident

The study process for the Duchesne City Community Transportation Plan consist of three basic parts: (1) inventory and analyze existing conditions, (2) project future conditions, and (3) development of a Community Transportation Plan (TMP). This process involves the participation of the TAC for guidance, review, evaluation and recommendations in developing the TMP to include development of future projects for the identified study area.

The TAC will evaluate each part of the study process. Their comments will be incorporated into the study’s draft final report. The remainder of the draft final report will focus on the

recommendation and implementation portion of the transportation plan program. Transportation projects that will be recommended for the short-term and long-range needs will be developed based on the TAC's recommendations and concurrence.

The study process allows for the solicitation of input from the public at two TAC workshops. This public participation element is included in the study process to ensure that any decisions made regarding this study are acceptable to the community.

The first TAC workshop will provide an inventory and analysis of existing conditions and identify needed transportation improvements. The second TAC workshop will focus on prioritizing projects, estimating costs, and discussion of the funding processes.



The TAC is expected to recommend those comments that are to be incorporated into the report and applicable to the goals of this study. The draft final report and the final report will be submitted to the City for review and comments.

Upon local review of the draft report, UDOT will prepare appropriate changes and submit the final report to the City for approval. The final report will describe the study process, findings and conclusions, and will

document the analysis of the recommended transportation system projects and improvements.

**Figure 1-1: Duchesne
Study Area Location**

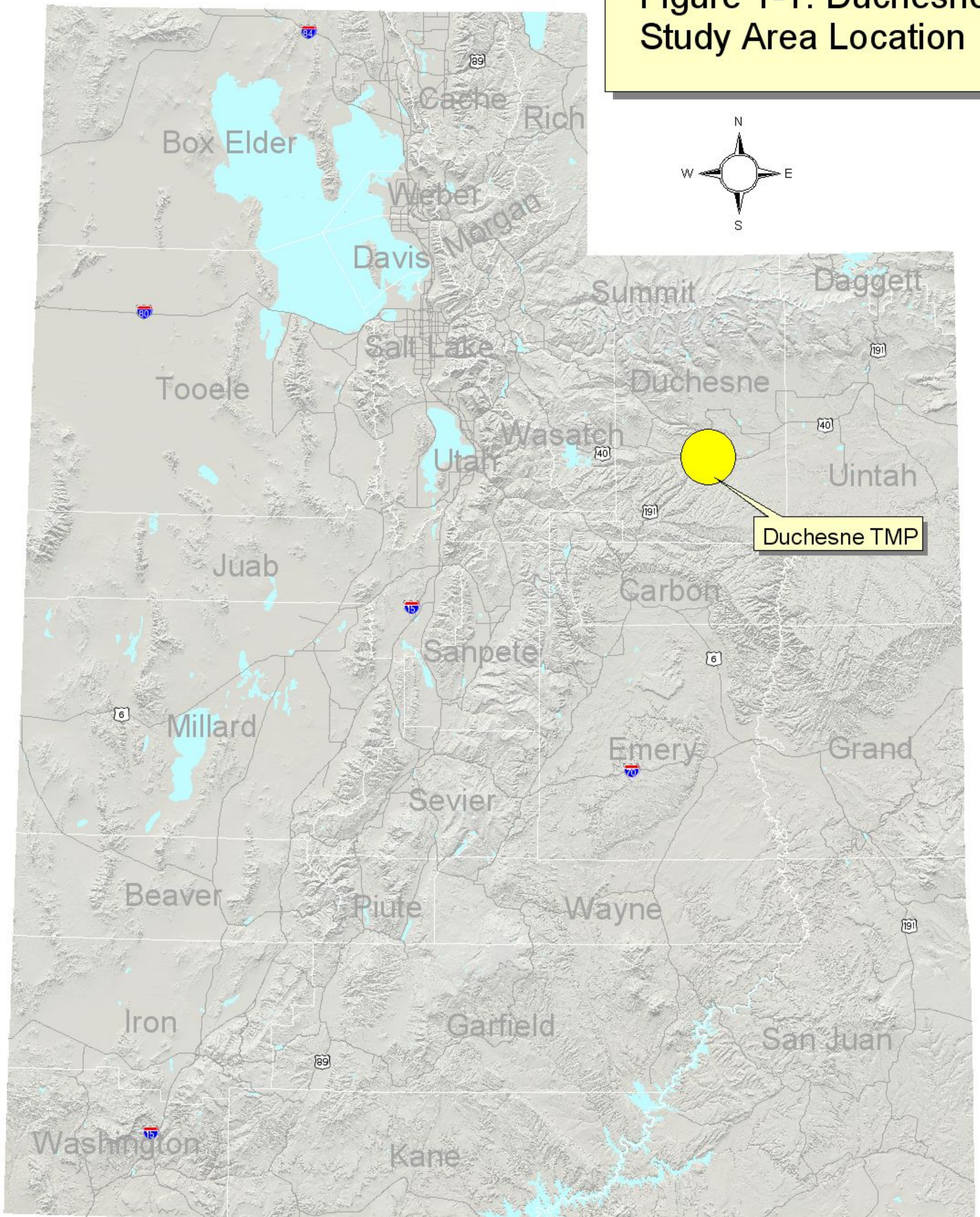
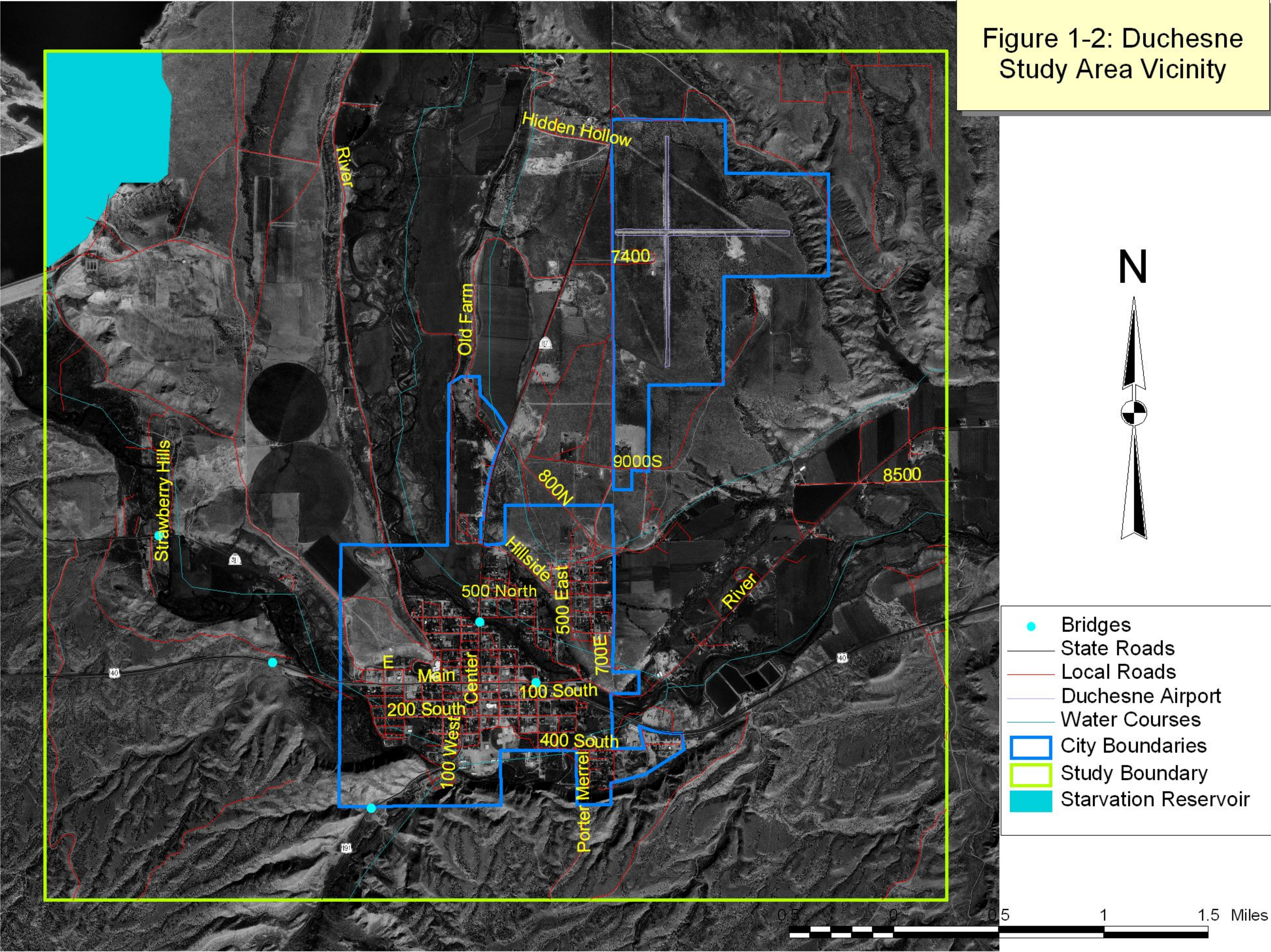


Figure 1-2: Duchesne
Study Area Vicinity



2. Existing Conditions

An inventory and evaluation of existing conditions within the study area was conducted to identify existing transportation problems or issues. The results of the investigation follow.

2.1. Land Use

In order to analyze and forecast traffic volumes, it is essential to understand the land use patterns within the study area. Much of the City is zoned Residential, but there are also many issues dealing with commercial and industrial properties. By analyzing the patterns or changes in land use, we can better predict the ever-changing transportation needs.

2.2. Environmental

In Utah there are a variety of local environmental issues. Each of the cities and counties need to look at what are the environmental issues in their areas on a case-by-case basis. There are many resources that can help local entities to determine what issues need to be addressed and how any problems that may exist can be resolved.

Some of the environmental concerns around the State are wetlands, endangered species, archeological sites, and geological sites among other issues. Environmental concerns should be addressed when looking at an area for any type of improvement to the transportation system. Protecting the environment is a critical part of the transportation planning process.

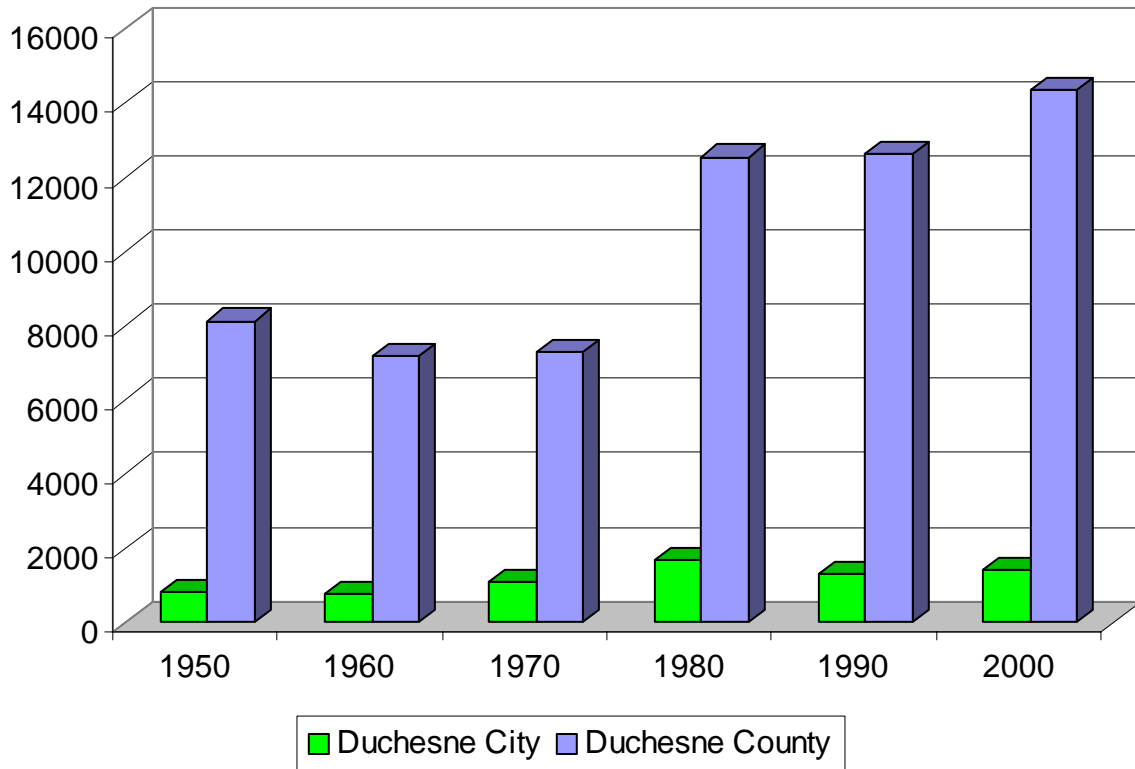
2.3. Socio-Economic (Census Brief: Cities and Counties of Utah, May 2001)

Duchesne City ranks 118th for population in the State of Utah, out of 235 incorporated cities and towns. Historical growth rates have been identified for this study, because past growth is usually a good indicator of what might occur in the future. Chart 2-1 identifies the population growth over the past 50 years for the State of Utah, Duchesne County and Duchesne City. Chart 2-2 identifies that population change in Duchesne City has ranged from (–22.00%) between 1980 and 1990 to gaining 53.29% between 1970 and 1980, while growth in the State has gained between 18 and 38 percent during the past 50 years.

Chart 2-1. Population Data

Year	Population		
	Utah	Duchesne County	Duchesne City
1950	688,862	8,134	804
1960	890,627	7,179	770
1970	1,059,273	7,299	1,094
1980	1,461,037	12,565	1,677
1990	1,722,850	12,645	1,308
2000	2,233,169	14,371	1,408

Population



Source: U.S. Bureau of the Census

<http://www.governor.utah.gov/dea/OtherPublications.html>

Chart 2-3 identifies yearly population growth rates for the State of Utah and Duchesne County.

As the State population has grown every decade from 1950 until 2000, Duchesne County has also showed stop and go rate of growth in population over the same period with periods of negative to slow growth with a period of accelerated growth during the early 1970s and the county population doubled from 1970 to 1984. Since, the population growth has stabilized with slow but positive growth.

Duchesne City has some unique demographic characteristics when compared with the State, particularly with age demographics. In the 25 to 54-age category, the State is at 38.6% the County is at 35.7% and the City is at 35.9%. For the 65+-age category, the State is at 8.5%, the County is at 13.9% and the City is at 9.4%. The State's median age is 27.1 years and the County's median age is 30.8 years, City's median age is 28.5 years. Another interesting statistic is that of Veteran status with State at 10.7%, County at 13.0%, and Duchesne City at 11.9%.

The 2000 median household income in Duchesne City is \$32,426, compared to the State median household income of \$45,726.

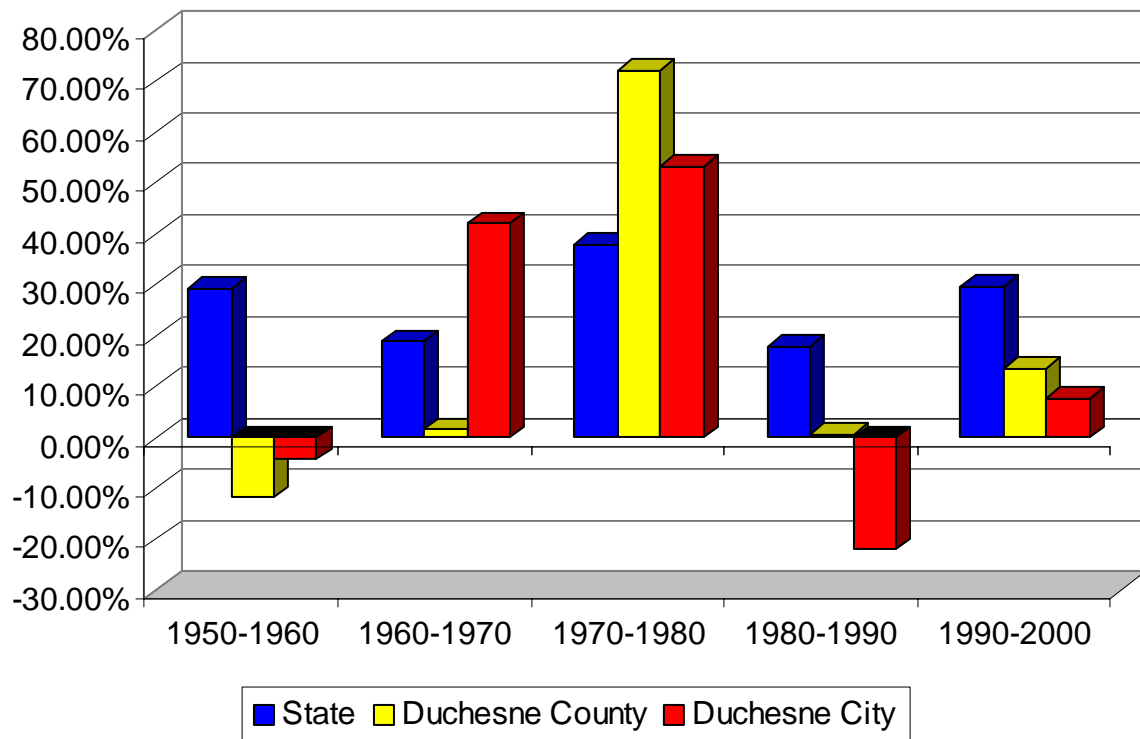
The unemployment rate in Duchesne City was 5.3 percent in 2000. According to the Utah Department of Employment Security (UDES), in 2000 there were approximately 530 employed people in Duchesne City or 54.9% of the population. The city has 51 unemployed people, which is 5.3 % of the population. There are 2,546 employed people in Duchesne County or 59% percent of the population. The county has 56 people unemployed, which is 1.3 % of the population.

The majority of employees in Duchesne County work in three primary employment sectors: Government Trade, and Services as shown in Chart 2-5. In the county, these sectors make up 76% of the labor force. Another interesting note was that housing built from 1990-2000 were 14.3% of total for Duchesne City compared to 25% for the state. Also homes built before 1939 were 14.5% of the total for Duchesne City with 10% for the state.

Chart 2-2. Population Change Data

Decade	State of Utah	Duchesne County	Duchesne City
1950-1960	29.29%	-11.74%	-4.23%
1960-1970	18.94%	1.67%	42.08%
1970-1980	37.93%	72.15%	53.29%
1980-1990	17.92%	0.64%	-22.00%
1990-2000	29.62%	13.65%	7.65%

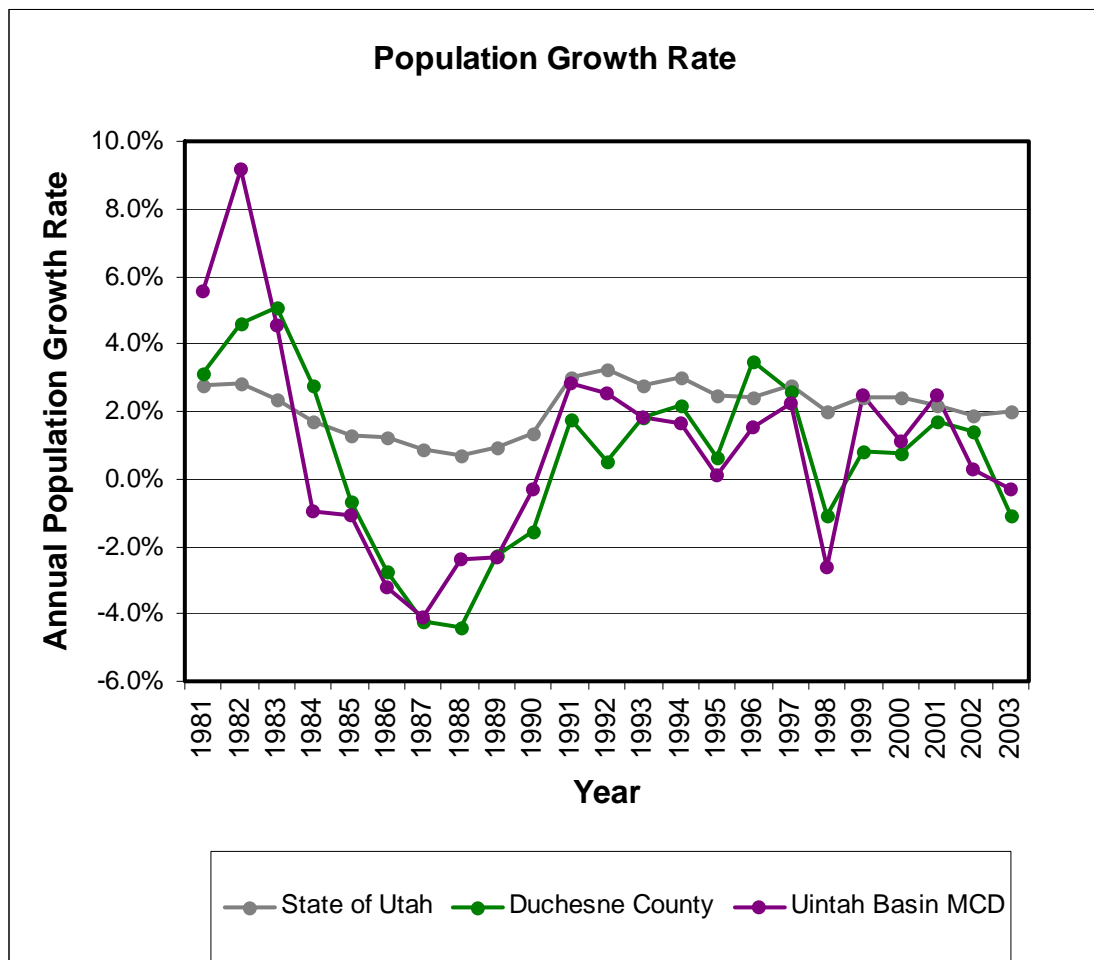
Decenial Population Change



Source Data: U.S. Bureau of the Census

<http://www.governor.utah./dea/OtherPublications.html>

Chart 2-3. Population Growth Rate (1980-2000)

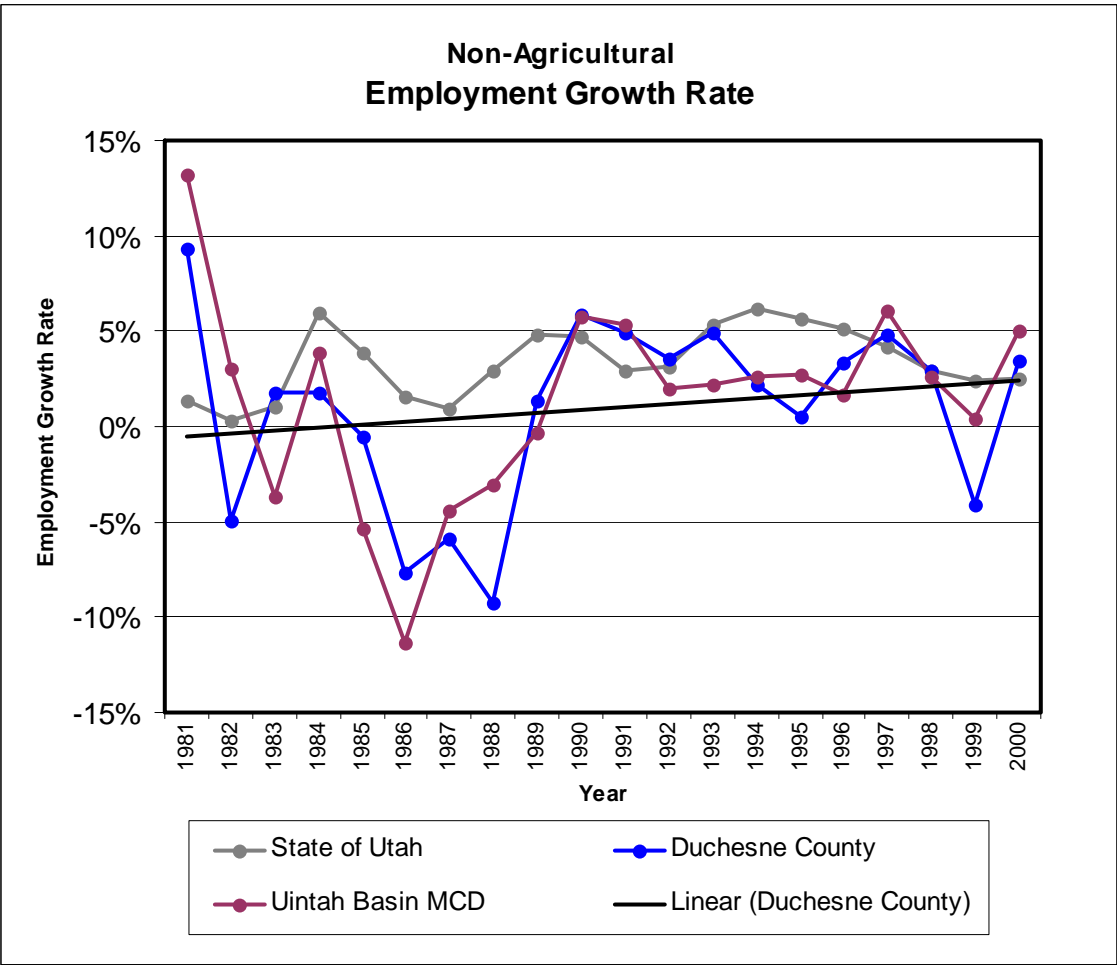


MCD = Multi-County Districts, Uintah Basin MCD = Daggett, Duchesne & Uintah Counties

Source: Governors Office of Planning and Budget

<http://www.governor.utah.gov/dea>

Chart 2-4. Employment Growth Rate (1980-2000)



MCD = Multi-County Districts, Uintah Basin MCD = Daggett, Duchesne & Uintah Counties

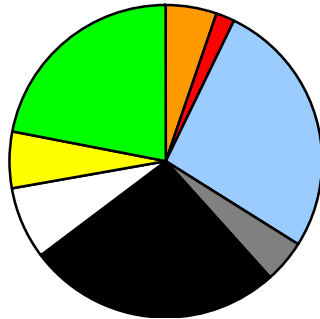
Source: Governors Office of Planning and Budget
<http://www.governor.utah.gov/dea>

Chart 2-5. Employment Sectors (1980-2000)

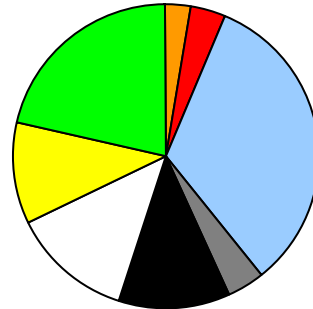
Sector	1980	1990	2000	Δ% 1980-2000
Construction	5.18%	2.78%	5.27%	19.05%
FIRE	2.00%	3.70%	2.30%	34.57%
Government	26.75%	33.05%	32.45%	41.88%
Manufacturing	4.29%	3.78%	3.08%	-16.09%
Mining	26.43%	12.20%	11.56%	-48.83%
Services	7.43%	12.71%	14.11%	122.26%
TCPU	5.87%	10.81%	9.32%	85.71%
Trade	22.04%	21.67%	22.47%	19.26%

FIRE = Finance, Insurance & Real Estate
 TCPU = Telecommunications & Public Utilities

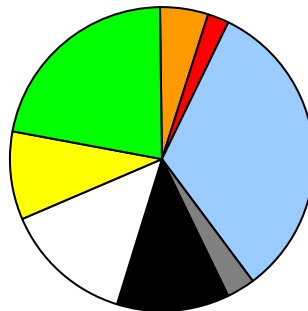
1980 Employment Sectors



1990 Employment Sectors



2000 Employment Sectors



Source: Governors Office of Planning and Budget
<http://www.governor.utah.gov/dea/HistoricalData.html>

2.4. Functional Street Classification

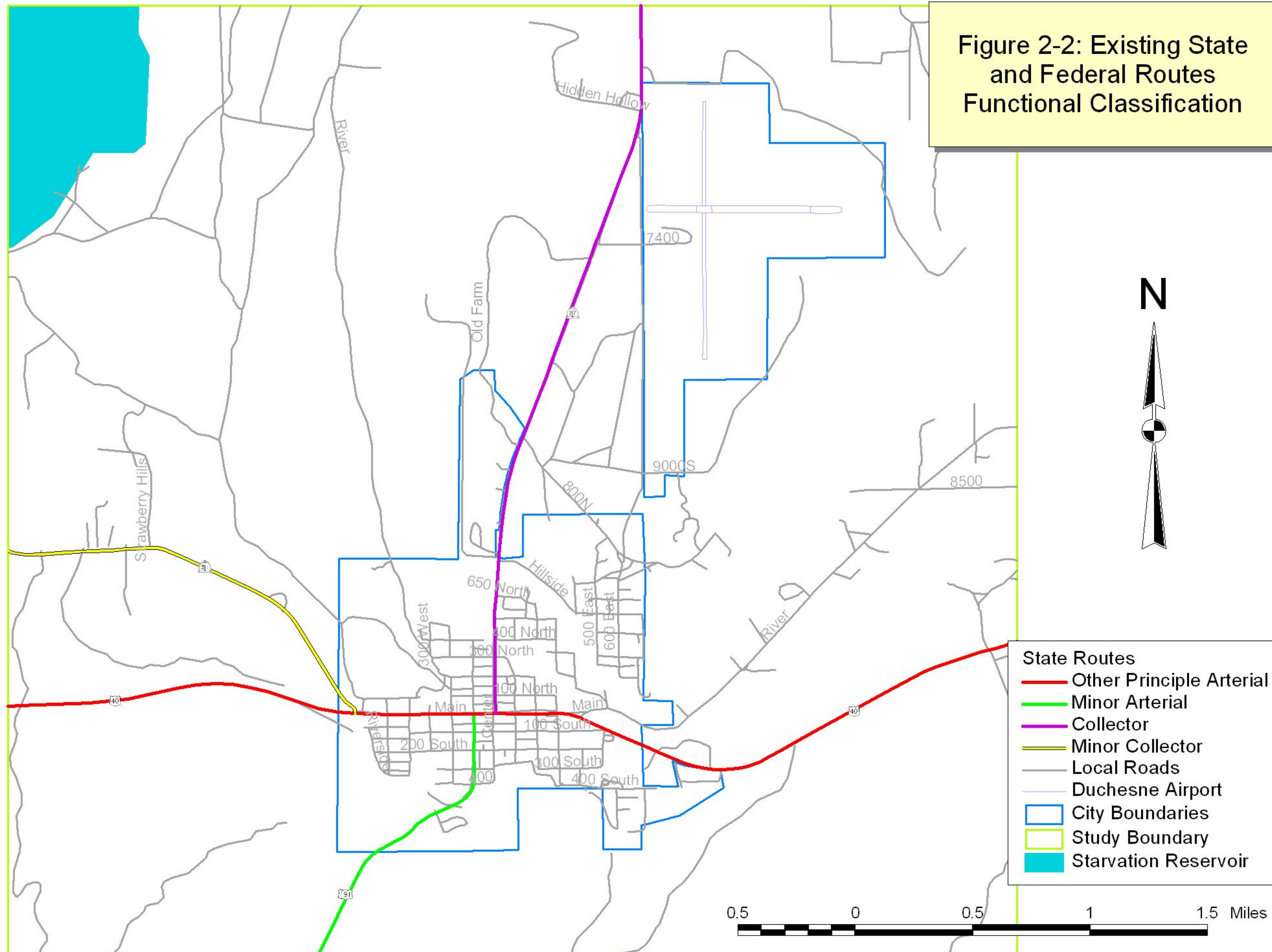
This document identifies the current function and operational characteristics of the selected roadway network of Duchesne City. Functional street classification is a subjective means to identify how a roadway functions and operates when a combination of the roadway's characteristics are evaluated. These characteristics include; roadway configuration, right-of-way, traffic volume, carrying capacity, property access, speed limit, roadway spacing, and length of trips using the roadway.

The primary classifications used in classifying selected roadways of Duchesne City are: Minor Arterial, Major Collector, Minor Collector and Local. An Arterial's function is to provide traffic mobility at higher speeds with limited property access. Traffic from the local roads is gathered by the Collector system, which provides a balance between mobility and property access trips. Local streets and roads serve property access based trips and these trips are generally shorter in length.

The functionally classified system is currently being revised statewide. The current functionally classified system generally defines the higher traffic roads, so only minor additions or changes will be required.



Figure 2-2: Existing State and Federal Routes Functional Classification



2.5 Bridges

There are six bridges on the state system located in the study area that could be eligible for federal bridge maintenance, rehabilitation, or replacement funds. Bridges are maintained and minor repairs made with maintenance funds. A bridge is rehabilitated or replaced as it deteriorates over time and as traffic volumes increase. (Figure 2-3 Bridge Sufficiency Rating)

Table 1 compares the bridges in the study area and identifies their sufficiency rating and location. Sufficiency rating indicates current condition of the structure with a rating of 100 showing a structure that is in excellent shape. A rating nearing 50 will reveal a structure that is in need of attention and is eligible for federal funding.

Table 1. Bridges

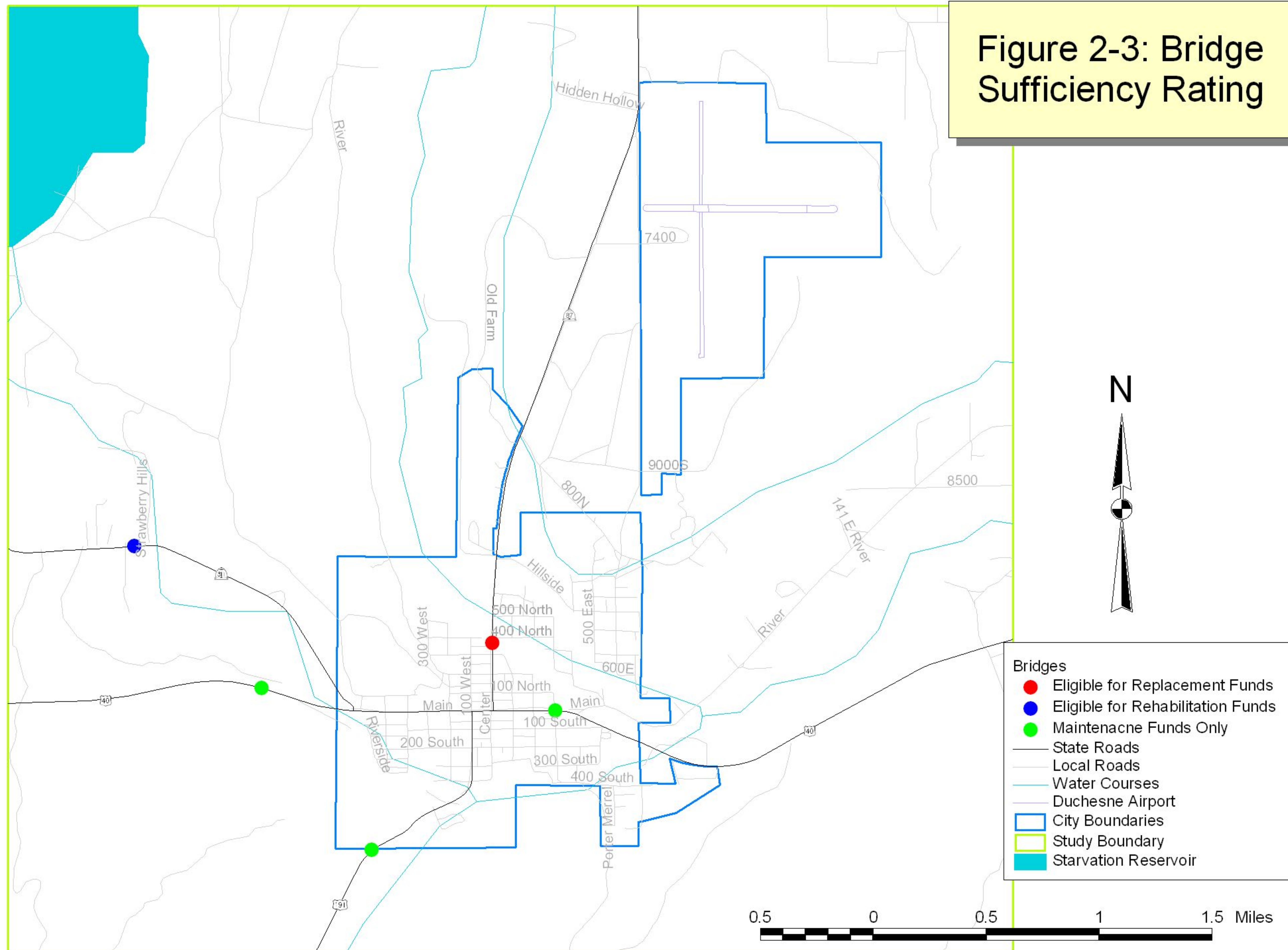
Number	Location	Maximum Span	No. Lanes & Road Width	Sidewalk	Sufficiency Rating
C-560	SR-40 over Starvation Reservoir	500 m	2 lanes, 13 m	No	82.7
F-265	SR-40 over Strawberry River	48.2 m	3 lanes, 15.8 m	No	82.7
F-62	SR-40 over Strawberry River	23.2 m	2 lanes, 13.0 m	No	81.3
D-588	SR-87 over Duchesne River	42.1 m	2 lanes, 11.6 m	Yes	47.2
F-382	SR-191 over Strawberry River	27.4 m	2 lanes, 11.8 m	No	88.4
C-72	SR-311 over Strawberry River	22.3 m	2 lanes, 6.5 m	No	64.3

Bridge Sufficiency Rating – Figure 2-3

Source: Utah Department of Transportation/Structures Division



Figure 2-3: Bridge Sufficiency Rating



2.6 Traffic Counts

Recent average daily traffic count data were obtained from UDOT. Table 2 shows the traffic count data on the key roadways of the study area. The number of vehicles in both directions that pass over a given segment of roadway in a 24-hour period is referred to as the average annual daily traffic (AADT) for that segment.

Table 2. Average Annual Daily Traffic

Road	Segment	Year	AADT
US-40	West Incorporated Limits Duchesne	2003	3452
US-40	Junction SR-87 in Duchesne	2003	3505
US-40	East Incorporated Limits Duchesne	2002	4905
SR-87	Junction of US-40	2003	2535
SR-87	North Incorporated Limits Duchesne	2003	2480
SR-311	Junction of US-40	2003	270
SR-191	South Incorporated limits Duchesne	2003	645

Source: Utah Department of Transportation

These are averages for the entire year. Duchesne City experiences a significant increase in traffic during the summer months. UDOT maintains 86 continuously operated automatic traffic recorders (ATR) throughout the state highway system. ATRs collect data continuously throughout the year in order to determine monthly, weekly, daily, and hourly traffic patterns. No ATRs are located in or near the study area. The ATR located in or near the study area on US-40. The following summarize the 2003 data from the ATR at this location.

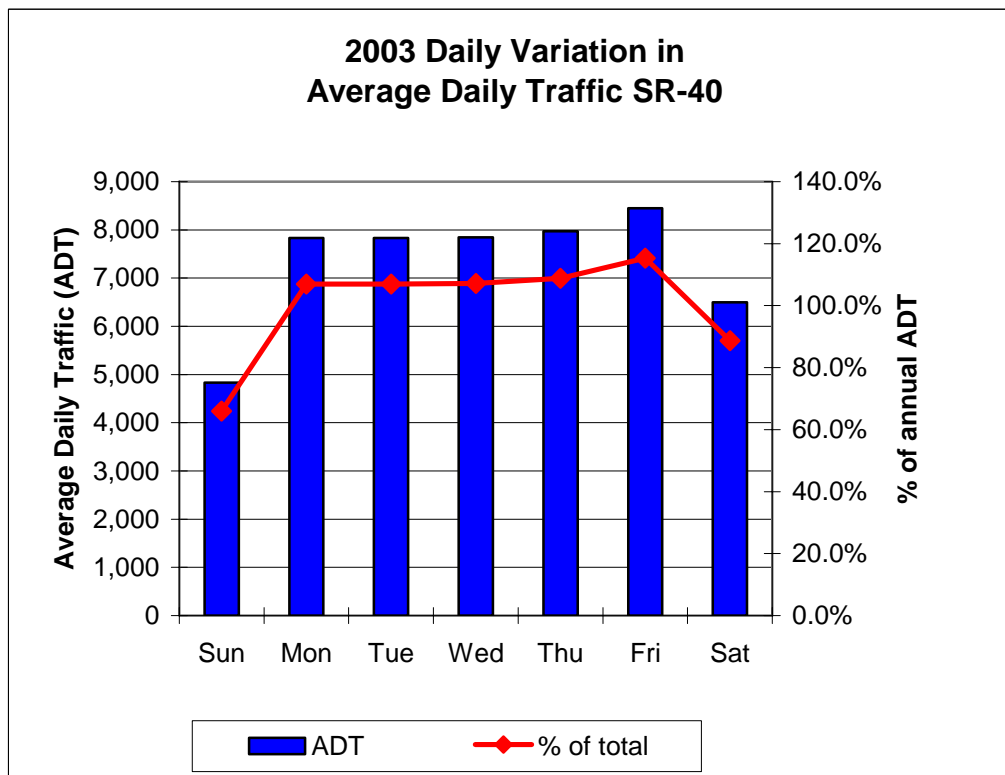
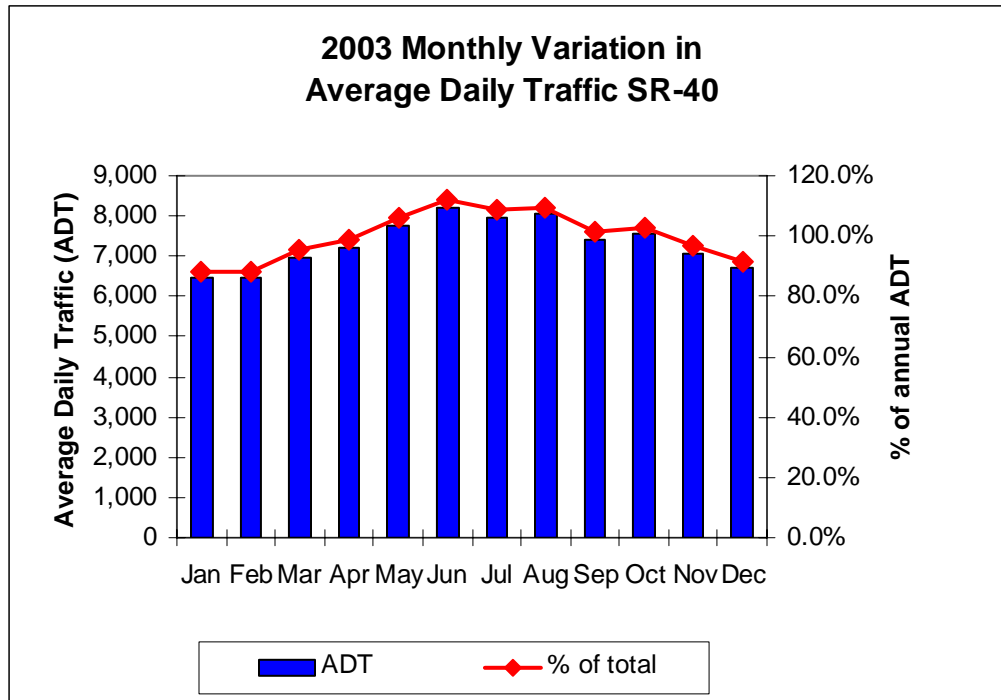
Traffic on US-40; 3 Miles West of SR 121, Roosevelt @ MP 111.39

- June was the highest volume month.
- February was the lowest volume month
- The highest daily volumes occurred on Friday
- The lowest daily volumes occurred on Sunday

The hourly traffic shows a clear average peak hour of around 3:00 to 6:00 pm. This is consistent with and afternoon commuter peak.

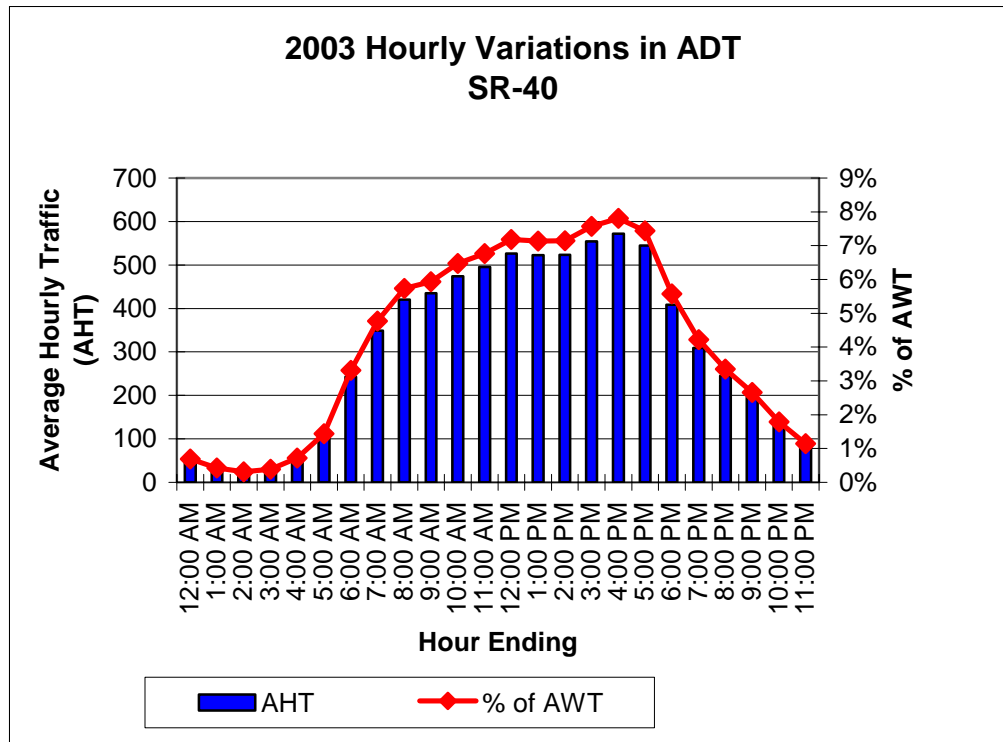
A map illustrating existing and future traffic, peak season traffic, and roadway capacities is presented in the Traffic Forecast section 3.2.

Monthly and Daily ADT on US-40



Source: Utah Department of Transportation

Hourly ADT on US-40



Source: Utah Department of Transportation

A map illustrating existing and future traffic, peak season traffic, and roadway capacities is presented in the Traffic Forecast section 3.2.

2.7 Traffic Accidents

Traffic accident data was obtained from UDOT's database of reported accidents from 2003. Table-3 summarizes the accident statistics for those segments for the year 2002. Additional information includes the average daily traffic, the number of reported accidents, and the accident rates. The roadway segment accident rates were determined in terms of accidents per million vehicle miles traveled. The crash rates for each roadway segment are compared to the expected crash rate for similar facilities across the state.

Upon review of the accident data for the state system, there appears to be a higher than expected accident rates at the following locations:

- **On SR-257 From milepost 0.0 to milepost 0.53**

The remainder of the state system shows a lower than expected accident rate. Figure 2-4 shows accident data taken from 2001-2003, which shows various segments of the state highway system and associated accident data.

Duchesne City may wish to review the accident history for the local street system to identify any specific accident hot spot locations.

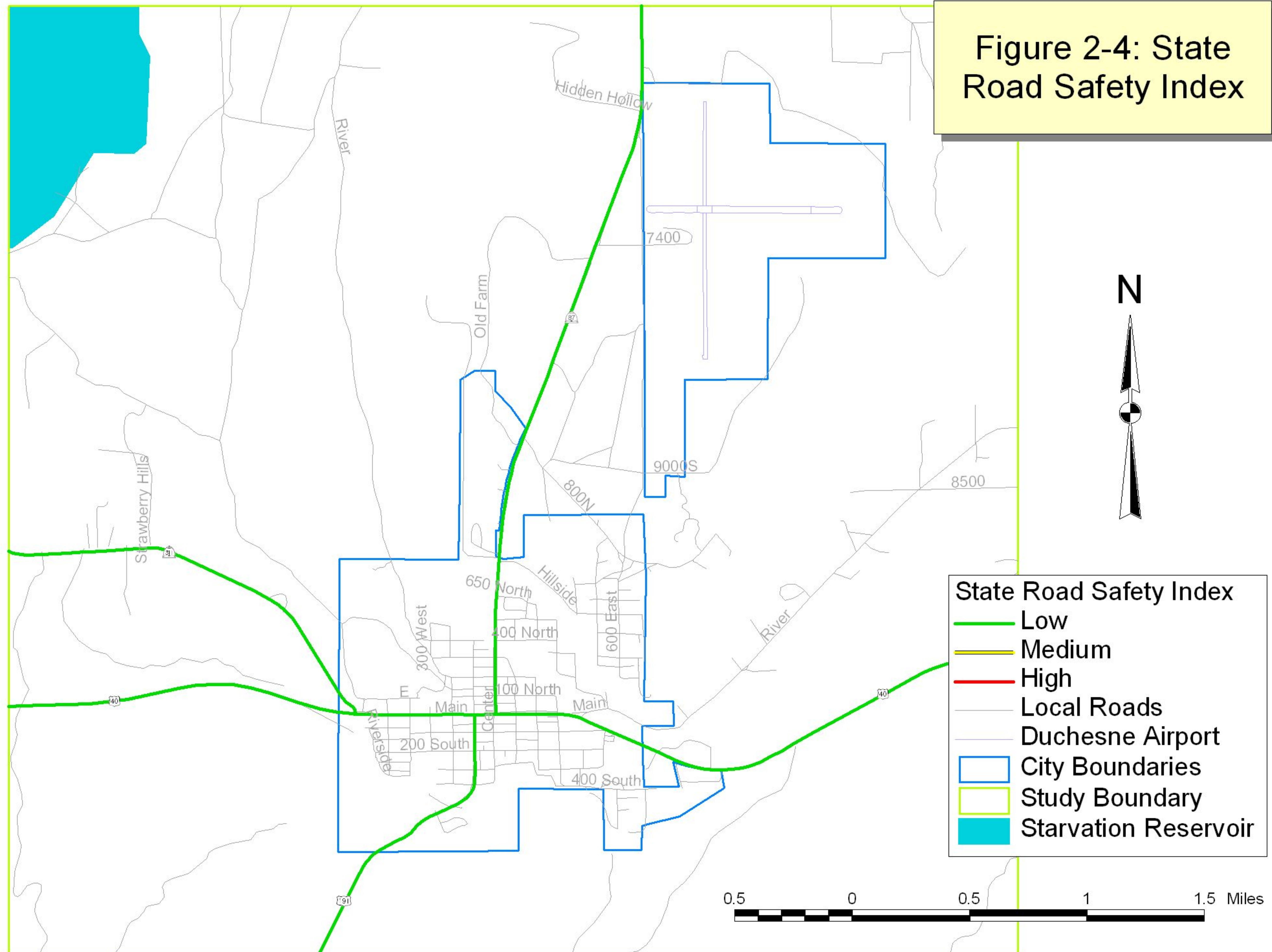
Table 2-3. Crash Data 2003

Road	From Milepost	End Milepost	ADT (2002)	# Crashes (2002)	Crash Rate	
					Actual	Expected*
40	84	86.13	2,935	2	0.64	1.54
40	86.14	86.8	2,945	4	4.06	1.54
40	86.81	87.51	3,475	1	0.86	1.54
40	87.52	89.5	4,860	7	2.43	1.54
87	0	0.64	2,490	2	3.36	2.37
87	0.65	4.25	2,440	5	1.61	2.37
191	199	200.66	455	1	3.73	2.19
191	200.67	201.53	1,405	2	9.54	2.19
191	201.54	202.38	3,970	11	10.39	1.78

* Statewide average accident rates for functional class and volume group.

Red indicates higher than expected rates of accidents

Figure 2-4: State Road Safety Index



2.8 Bicycle and Pedestrian

The Federal Highway Administration recognizes the increasingly important role of bicycling and walking in creating a balanced, intermodal transportation system, and encourages state and local governments to incorporate all necessary provisions to accommodate bicycle and pedestrian traffic. In following this directive, Duchesne City is encouraged to adopt a “complete streets” philosophy that allows for the advancement of a transportation system for both motorized and non-motorized travel.

2.8.1 Biking/Trails

Duchesne City is rural in nature with typical country roads. There has not been a need for dedicated bike lanes in the City and the shoulder-width of paved roads in the area vary. There are some locations, such as Main Street, where shoulders are in place and provide a level of comfort to cyclists choosing not to ride in the travel lane. As growth occurs within the City, needs may change and a reevaluation of the need for bike lanes may be warranted.

Mountain biking opportunities are not readily available in the Duchesne area. The City would like to establish a trails system network and has actively pursued this plan with the Utah State Parks; however, to date, this has not occurred. The trails system envisioned by the City is one that provides facilities for mountain biking and also for ATV riding. The community has a high amount of ATV usage and a designated place to ride would lessen the chance of out-of-bound riding and the ensuing problems that exist.

2.8.2 Pedestrian

As in most rural locations within the state, not all areas within Duchesne City has sidewalk in place. Most of the available sidewalk is found in the downtown business district and around local schools. The sidewalks that have been placed are in good condition.

The community enjoys a pedestrian-only walkway that follows the river, behind the rodeo grounds. The City would like to expand this facility type, and create an additional pathway along Highway 89 to the Moon Lake area.

2.9 Public Transportation

There is no city bus system or intercity public transportation serving Duchesne. The nearest intercity bus service (Greyhound) maintains stops in Salt Lake City and Provo. Likewise, intercity rail passenger service is provided by Amtrak’s Chicago to San Francisco “California Zephyr” which also stops in both Salt Lake City and Provo. Scheduled airline service is available at the Salt Lake City International Airport, with regional airline service provided into Vernal as well.

2.10 Freight

Freight transportation in the Duchesne, aside from the Chevron Crude Oil Pipeline that passes to the north of the community, is almost entirely handled by trucks. Located at the junction of U.S. Highways 40 and 191, Duchesne sees substantial truck traffic passing through the community, most of which is regional in nature.

The largest percentage of truck freight cargo handled through Duchesne is crude oil en route from the oil fields of the Uinta Basin to the five refineries in the Salt Lake City/North Salt Lake /Woods Cross area of the Wasatch Front. Inadequate capacity of the aforementioned Chevron Crude Oil Pipeline, as well as the thick nature of the “Black Wax” crude from the nearby Roosevelt Oil Field, necessitate the shipment by truck of much of the Basin’s oil output. The lack of railroad service in the Uinta Basin also contributes to the high volume of truck traffic in and out of the Basin, primarily impacting U.S. 40 passing through Duchesne.

Although U.S. 40 is not a primary long-distance freight route, an increasing number of long-haul trucks are using the road as an alternate to I-70 and I-80. Due to its steep grades and sharp curves, U.S. 191 between Helper and Duchesne is a secondary truck route, although heavy coal trucks do use it frequently.

2.11 Aviation Facilities & Operations

Located at an elevation of 5826 feet, Duchesne Municipal Airport is located two miles northeast of town. Duchesne is equipped with two runways; an asphalt-paved main runway, #16/34, that is 5800 feet long and 60 feet wide, and marginally-maintained dirt runway #25/17, which is 4390 feet in length and 75 feet wide. Runway #16/34 is equipped with pilot-activated lights, while runway #25/17 has no lights or reflectors. Neither runway at Duchesne has a parallel taxiway. The airport is equipped with a dusk-to-dawn airways beacon light, a VOR non-precision approach system, and Precision Approach Path Indicator (PAPI) lights. There is currently no fixed-base operator (FBO) at Duchesne, although fuel services are available upon request.

Future plans call for the expansion of runway #16/34 to 6950 feet in length and 75 feet in width. No scheduled airline or air cargo services are provided at Duchesne, with the nearest such services in either Vernal or Salt Lake City.

2.12 Revenue

Maintenance of existing transportation facilities and construction of new facilities come primarily from revenue sources that include the Duchesne City general fund, federal funds and State Class C funds.

Financing for local transportation projects consists of a combination of federal, state, and local revenues. However, this total is not entirely available for transportation improvement projects, since annual operating and maintenance costs must be deducted from the total revenue. In addition, the City is limited in their ability to subsidize the transportation budget from general fund revenues.

2.12.1 State Class B and C Program

The distribution of Class B and C Program monies is established by state legislation and is administered by the State Department of Transportation. Revenues for the program are derived from State fuel taxes, registration fees, driver license fees, inspection fees, and transportation permits. Twenty-five percent of the funds derived from the taxes and fees are distributed to cities and counties for construction and maintenance programs.

Class B and C funds are allocated to each city and county by the following formula: 50% based on the population ratio of the local jurisdiction with the population of the State, 50% based on the ratio that the Class B roads weighted mileage within each county and the class C roads weighted mileage within each municipality bear to the total class B and Class C roads weighted mileage within the state. Weighted means the sum of the following: (i) paved roads multiplied by five; (ii) graveled road miles multiplied by two; and (iii) all other road types multiplied by one. (Utah Code 72-2-108) For more information go to UDOT's homepage @ www.udot.utah.gov, tab on "Doing Business" select the tab for "Local Government Assistance" here you will find the Regulations governing Class B&C funds

The table below identifies the ratio used to determine the amount of B and C funds allocated.

Apportionment Method of Class B and C Funds

Based on	Of
50%	Roadway Mileage *Based on Surface Type Classification (Weighted Measure) Pave Road (X 5) Graveled Road (X 2) Other Road (X 1)
50%	Total Population

Class B and C funds can be used for maintenance and construction of highways, however thirty percent of the funds must be used for construction or maintenance projects that exceed \$40,000. Class B and C funds can also be used for matching federal funds or to pay the principal, interest, premiums, and reserves for issued bonds.

Duchesne City received \$83,301.98 in 2003 for its Class C fund allocation.

2.12.2 Federal Funds

There are federal monies that are available to cities and counties through federal-aid program. The funds are administered by the Utah Department of Transportation. In

order to be eligible, a project must be listed on the five-year Statewide Transportation Improvement Program (STIP).

The Surface Transportation Program (STP) provides funding for any road that is functionally classified as a collector street or higher. STP funds can be used for a range of projects including rehabilitation and new construction. The Joint Highway Committee programs a portion of the STP funds for projects around the State for urban areas. A portion of the STP funds can be used in any area of the State, at the discretion of the State Transportation Commission.

Transportation Enhancement funds are allocated based on a competitive application process. The Transportation Enhancement Advisory Committee reviews the applications and then a portion of those are recommended to the State Transportation Commission for funding. Transportation enhancements include 12 categories ranging from historic preservation, bicycle and pedestrian facilities to water runoff mitigation. Other funds that are available are State Trails Funds, administered by the Division of Wildlife Resources.

The amount of money available for projects specifically in the study area varies each year depending on the planned projects in UDOT's Region Three. As a result, federal aid program monies are not listed as part of the study area's transportation revenue.

2.12.3 Local Funds

Duchesne City, like most cities, has utilized general fund revenues in its transportation program. Other options available to improve the City's transportation facilities could involve some type of bonding arrangement, either through the creation of a redevelopment district or a special improvement district. These districts are organized for the purpose of funding a single, specific project that benefits and identifiable group of properties. Another source is through general obligation bonding arrangements for projects felt to be beneficial to the entire entity issuing the bonds.

2.12.4 Private Sources

Private interests often provide alternative funding for transportation improvements. Developers construct the local streets within the subdivisions and often dedicate right-of-way and participate in the construction of collector or arterial streets adjacent to their developments. Developers can be considered as an alternative source of funds for projects because of the impacts of the development, such as the need for traffic signals or street widening. Developers should be expected to mitigate certain impacts resulting from their developments. The need for improvements, such as traffic signals or street widening can be mitigated through direct construction or impact fees.

3. Future Conditions

3.1. Land Use and Growth

Duchesne City's Community Transportation Plan must be responsive to current and future needs of the area. The area's growth must be estimated and incorporated into the evaluation and analysis of future transportation needs. This is done by:

- Forecasting future population, employment, and land use;
- Projecting traffic demand;
- Forecasting roadway travel volumes;
- Evaluating transportation system impacts;
- Documenting transportation system needs; and
- Identifying improvements to meet those needs.

This chapter summarizes the population, employment, and land use projections developed for the project study area. Future traffic volumes for the major roadway segments are based on projections utilizing 20 years of traffic count history. The forecasted traffic data are then used to identify future deficiencies in the transportation system.

3.1.1 Population and Employment Forecasts

The Governor's Office of Planning and Budget develop population and employment projections. The current population and employment levels, as well as the future projections for each are shown for Duchesne City and Duchesne County in the following table.

Population and Employment

Year	City	County	
	Population	Population	Employment
2000	1,408	14,518	7,387
2030	1,981	19,212	10,601

3.1.2 Future Land Use

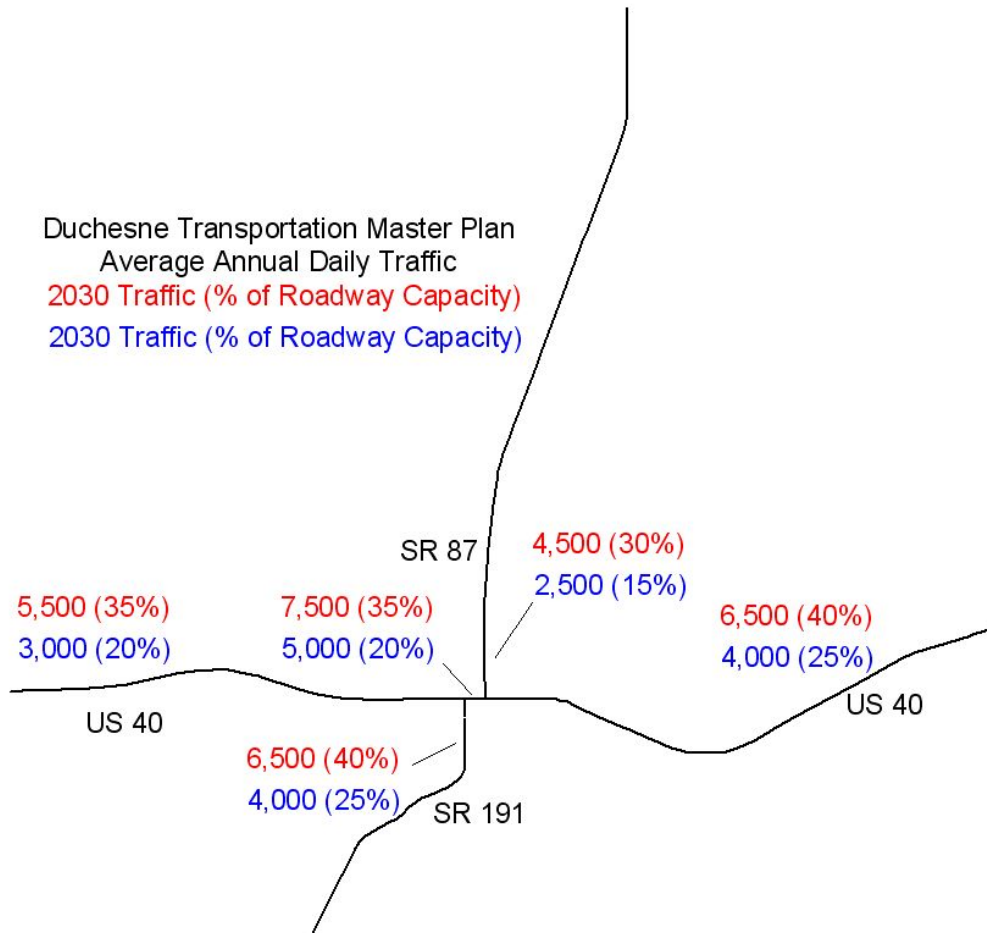
The City has an annexation plan that describes where it plans to grow. Some areas for developments were discussed during the course of the Community Transportation Plan. Updated Land Use documents can be found in the Duchesne City General Plan.

While specific development plans change with time, it is important to note possible areas of development within the Duchesne City area. Commercial and industrial growth is also important in understanding transportation needs.

3.2 Traffic Forecast

Traffic in the Duchesne area is growing and will continue to grow. Although the population projections from the Governors Office of Planning and Budget show a 1 to 2% annual growth, traffic has historically grown at about 3%. This growth rate may increase even more

if significant economic growth occurs. Traffic counts are collected about every other year and traffic growth will continue to be monitored. The volumes illustrated below present average annual daily traffic for years 2003 and 2030 based on UDOT's historical data.



Traffic Forecast Sheets

2003

2030

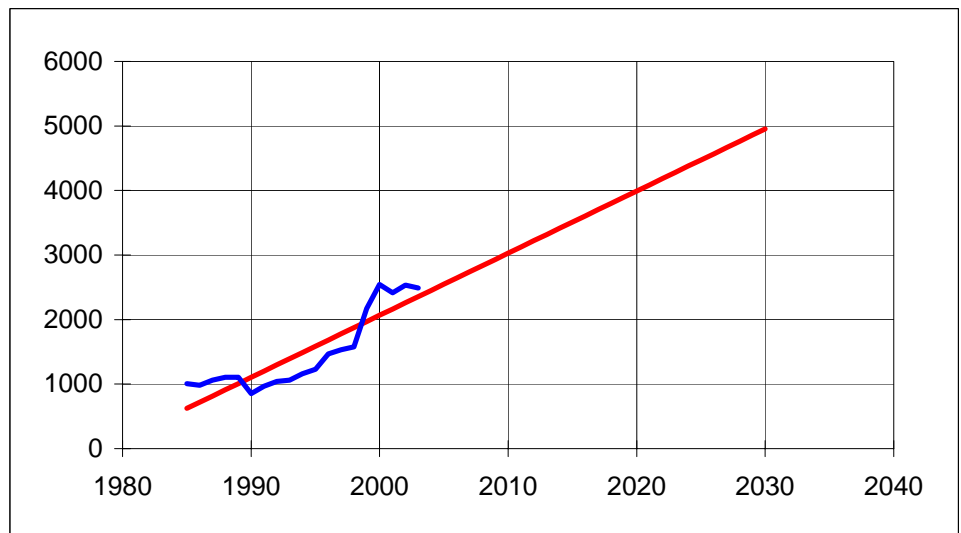


Route SR 87
 Limits at US 40 in Duchesne

Year	AADT	Forecast
1985	1,005	623
1986	980	719
1987	1,060	815
1988	1,105	912
1989	1,105	1008
1990	855	1104
1991	965	1200
1992	1,040	1297
1993	1,060	1393
1994	1,160	1489
1995	1,230	1585
1996	1,470	1682
1997	1,530	1778
1998	1,575	1874
1999	2,170	1970
2000	2,545	2067
2001	2,415	2163
2002	2,535	2259
2003	2,490	2355
2004		2452
2005		2548
2006		2644
2007		2740
2008		2837
2009		2933
2010		3029
2011		3125
2012		3222
2013		3318
2014		3414
2015		3510
2016		3607
2017		3703
2018		3799
2019		3895
2020		3992
2021		4088
2022		4184
2023		4280
2024		4377
2025		4473
2026		4569
2027		4665
2028		4762
2029		4858
2030		4954

30% Trucks

Projection based on 1985 to 2003 data
 4.4% growth rate → 96 vehicles/year



Notes

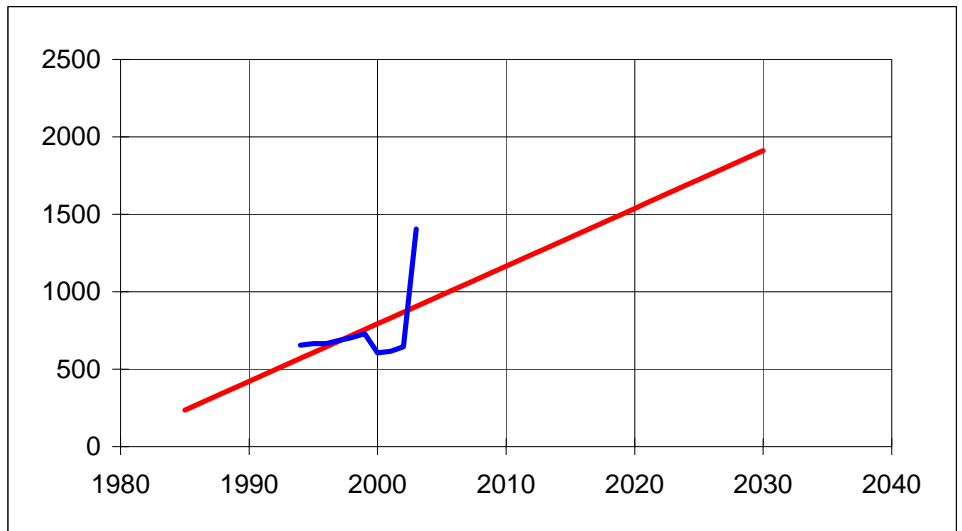


Route US 191
 Limits in Duchesne City

Year	AADT	Forecast
1985		235
1986		272
1987		309
1988		346
1989		384
1990		421
1991		458
1992		495
1993		533
1994	655	570
1995	665	607
1996	665	644
1997	685	682
1998	705	719
1999	730	756
2000	605	793
2001	615	831
2002	645	868
2003	1,405	905
2004		942
2005		980
2006		1017
2007		1054
2008		1091
2009		1129
2010		1166
2011		1203
2012		1240
2013		1278
2014		1315
2015		1352
2016		1389
2017		1426
2018		1464
2019		1501
2020		1538
2021		1575
2022		1613
2023		1650
2024		1687
2025		1724
2026		1762
2027		1799
2028		1836
2029		1873
2030		1911

14% Trucks

Projection based on 1994 to 2003 data
 4.5% growth rate → 37 vehicles/year



Notes

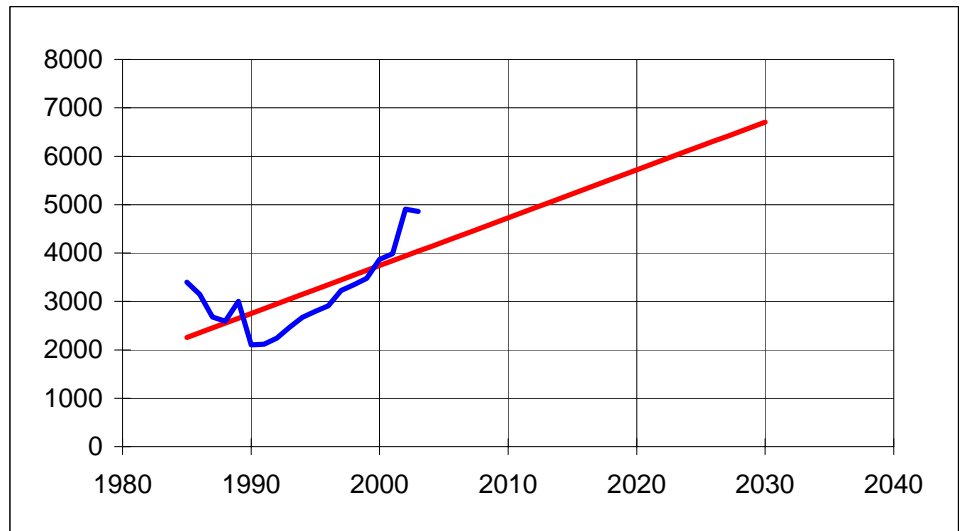


Route US 40
 Limits in Duchesne City

Year	AADT	Forecast
1985	3,400	2257
1986	3,150	2356
1987	2,675	2454
1988	2,595	2553
1989	3,000	2652
1990	2,100	2751
1991	2,115	2850
1992	2,240	2949
1993	2,465	3048
1994	2,670	3147
1995	2,800	3246
1996	2,910	3344
1997	3,226	3443
1998	3,345	3542
1999	3,475	3641
2000	3,870	3740
2001	3,985	3839
2002	4,905	3938
2003	4,860	4037
2004		4135
2005		4234
2006		4333
2007		4432
2008		4531
2009		4630
2010		4729
2011		4828
2012		4927
2013		5025
2014		5124
2015		5223
2016		5322
2017		5421
2018		5520
2019		5619
2020		5718
2021		5816
2022		5915
2023		6014
2024		6113
2025		6212
2026		6311
2027		6410
2028		6509
2029		6608
2030		6706

15% Trucks

Projection based on 1985 to 2003 data
 2.6% growth rate → 99 vehicles/year



Notes

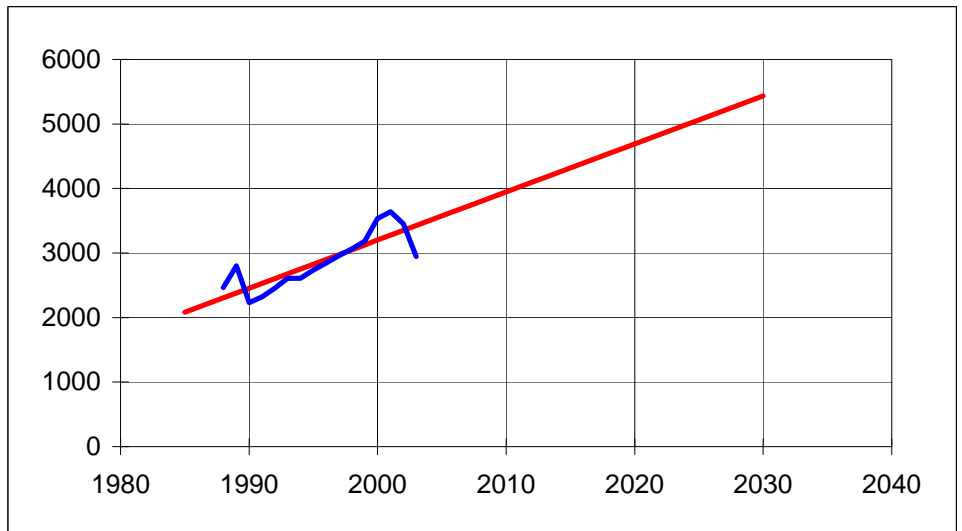


Route US 40
 Limits West of Duchesne City

Year	AADT	Forecast
1985		2083
1986		2158
1987		2232
1988	2,465	2307
1989	2,800	2381
1990	2,230	2456
1991	2,320	2530
1992	2,455	2605
1993	2,610	2679
1994	2,610	2754
1995	2,735	2828
1996	2,845	2903
1997	2,958	2977
1998	3,065	3052
1999	3,185	3126
2000	3,535	3201
2001	3,640	3275
2002	3,452	3350
2003	2,945	3424
2004		3499
2005		3573
2006		3648
2007		3722
2008		3797
2009		3871
2010		3946
2011		4020
2012		4095
2013		4169
2014		4244
2015		4318
2016		4393
2017		4467
2018		4542
2019		4616
2020		4691
2021		4765
2022		4840
2023		4914
2024		4989
2025		5063
2026		5138
2027		5212
2028		5287
2029		5361
2030		5436

20% Trucks

Projection based on 1985 to 2003 data
 2.3% growth rate → 75 vehicles/year



Notes

4. Planning Issues and Guidelines

Provided below is a discussion of various issues with a focus on elements that promote a safe and efficient transportation system in the future.

4.1 Guidelines and Policies

These guidelines address certain areas of concern that are applicable to Duchesne City's Community Transportation Plan.

4.1.1 Access Management

This section will define and describe some of the aspects of Access Management for roadways and why it is so important. Access Management can make many of the roads in a system work better and operate more safely if properly implemented. There are many benefits to properly implemented access management. Some of the benefits follow:

- Reduction in traffic conflicts and accidents
- Reduced traffic congestion
- Preservation of traffic capacity and level of service
- Improved economic benefits businesses and service agencies
- Potential reductions in air pollution from vehicle exhausts

4.1.1.1 Definition

Access management is the process of comprehensive application of traffic engineering techniques in a manner that seeks to optimize highway system performance in terms of safety, capacity, and speed. Access Management is one tool of many that makes a traffic system work better with what is available.

4.1.1.2 Access Management Techniques

There are many techniques that can be used in access management. The most common techniques are signal spacing, street spacing, access spacing, and interchange to crossroad access spacing. There are various distances for each spacing, dependant upon the roadway type being accessed and the accessing roadway. UDOT has developed an access management program and more information can be gathered from the UDOT website and from the Access Management Program Coordinator.

4.1.1.3 Where to Use Access Management

Access Management can be used on any roadway. In some cases, such as State Highways, access management is a requirement. Access management can be used as

an inexpensive way to improve performance on a major roadway that is increasing in volume. Access management should be used on new roadways and roadways that are to be improved so as to prolong the usefulness of the roadway.

4.1.2 Context Sensitive Solutions

Context Sensitive Solutions (CSS) addresses the need, purpose, safety and service of a transportation project, as well as the protection of scenic, aesthetic, historic, environmental and other community values. CSS is an approach to transportation solutions that find, recognize and incorporate issues/factors that are part of the larger context such as the physical, social, economic, political and cultural impacts. When this approach is used in a project the project become better for all of the entities involved.

4.1.3 Recommended Roadway Cross Sections

Cross sections are the combination of the individual design elements that constitute the design of the roadway. Cross section elements include the pavement surface for driving and parking lanes, curb and gutter, sidewalks and additional buffer/landscape areas. Right-of-way is the total land area needed to provide for the cross section elements. Suggested types of cross-sections can be found in figure 4-1.

The design of the individual roadway elements depends on the intended use of the facility. Roads with higher design volumes and speeds need more travel lanes and wider right-of-way than low volume, low speed roads. The high use roadway type should include wider shoulders and medians, separate turn lanes, dedicated bicycle lanes, elimination of on street parking, and control of driveway access. For most roadways, an additional buffer area is provided beyond the curb line. This buffer area accommodates the sidewalk area, landscaping, and local utilities. Locating the utilities outside the traveled way minimizes traffic disruption in utility repairs or changes in service are needed.

Federal Highway standard widths apply on the all roads that are part of the state highway system. Also, all federally funded roadways in Duchesne City and Duchesne County must adhere to the same standards for widths and design.

4.2 Bicycles and Pedestrians

4.2.1 Bicycles/Trails

Bicycles are allowed on all roadways, except where legally prohibited, and as such should be a consideration on all roads that are being designed and constructed, and as roadway improvements are taking place. To increase the level of interest in bicycling in the Duchesne area, the City should consider requiring developers to include separate bicycle/pedestrian pathways in all new developments. Opportunities to include bike lanes and increased shoulder-width in conjunction with a roadway project should be taken whenever technically, environmentally, and financially feasible.

As referenced in Chapter 2 of this Plan, Duchesne City is a rural environment and as such accepts that ATV use will be an activity that the community will continue to enjoy. The City should move forward in exploring opportunities to partner with the State Parks Department in development of trails system for mountain biking and ATV use.

As Duchesne City continues to grow, a trails master plan will provide guidance for alternative and recreational modes of travel to enhance the quality of life for those in the community. It is important to note that regardless of the trails system's function, as the bike/trail facilities are planned, designed and constructed, the City should review the connectivity of the system. With input from the community, a review of the connectivity of the trails should play an integral role in the decision making process for potential projects. In order to enhance the quality of life for those in the community, the trails should be accessible to all users and incorporate ADA requirements.

The trails, when constructed, may have slight variances in application type due to possible differences in the terrain at a specific trail location or differing user needs. However, regardless of the design type, the applicable design standards found in the latest version of the AASHTO Guide for the Development of Bicycle Facilities should be followed, as well as the Manual on Uniform Traffic Control Devices (MUTCD) guidelines for appropriate signage of the trails system.

4.2.2 Pedestrians

Every effort should be made to accommodate pedestrians throughout Duchesne City. As future development takes place within the City, sidewalk placements will be required in areas where they do not currently exist. In addition to the downtown and school locations, pedestrian accommodations could be expanded to other areas to make a more pedestrian-friendly system. The City should continue to research the feasibility of a walkway along Highway 89 to Moon Lake, as referenced in Chapter 2 of this Plan. This travel way would complement the walkway now in place that runs along the river.

An opportunity to include accessible sidewalks, while adhering to ADA requirements, during construction of other projects is encouraged. For the safety and convenience of pedestrian traffic, sidewalk placement should be free from debris and obstructions or impediments such as utility poles, trees, bushes, etc. Duchesne City may require that new developments include sidewalk in all project plans, whether commercial or residential. To allow for pedestrian travel, the interconnectedness of the City's sidewalk system should be considered as all development takes place.

Sidewalks in residential areas should be at least 5-feet wide whenever adequate right-of-way can be secured. This will provide sufficient room and a level of comfort to persons walking in pairs or passing and will specifically allow for persons with strollers or in wheelchairs to pass. On major roadways, sidewalks at least 6-feet wide and with a 6 to 10-foot park strip are desirable. In pedestrian-focused areas, such as schools, parks, sports venues or theaters, and in hotel and market districts, even wider sidewalks are recommended to accommodate and encourage a higher level of pedestrian activity,

especially where tourist use would be expected. To ensure consistency of sidewalks throughout the area, UDOT's approved standard for sidewalks should be followed, as well as the 2004 AASHTO Guide for the Planning, Design, and Operation of Pedestrian Facilities.

There may be opportunity for the City to make improvements to their sidewalk system through utilization of the Utah Department of Transportation's Safe Sidewalk Program, available through the Traffic and Safety Division. The City should contact UDOT's Region Three office for application requirements.

The City should be aware of, and coordinate with, the area schools that are tasked with developing a routing plan to provide a safe route to school. The routing plan is to be reviewed and updated annually. Information regarding the Safe Routes to School program is available by contacting the Utah Department of Transportation's Traffic and Safety Division.

4.3 Enhancements Program

In 1991, the Intermodal Surface Transportation Efficiency Act (ISTEA) created the Transportation Enhancement program. The program has since been reauthorized in subsequent bills (i.e. TEA-21). The Transportation Enhancement program provides opportunities to use federal dollars to enhance the cultural and environmental value of the transportation system. These transportation enhancements are defined as follows by TEA-21:

The term 'transportation enhancement activities' means, with respect to any project or the area to be served by the project, any of the following activities if such activity relates to surface transportation: provision of facilities for pedestrians and bicycles, provision of safety and educational activities for pedestrians and bicyclists, acquisition of scenic easements and scenic or historic sites, scenic or historic highway programs (including the provision of tourist and welcome center facilities), landscaping and other scenic beautification, historic preservation, rehabilitation and operation of historic transportation buildings, structures, or facilities (including historic railroad facilities and canals), preservation of abandoned railway corridors (including the conservation and use thereof for pedestrian or bicycle trails), control and removal of outdoor advertising, archeological planning and research, environmental mitigation to address water pollution due to highway runoff or reduce vehicle caused wildlife mortality while maintaining habitat connectivity, and establishment of transportation museums.

The Utah Transportation Commission, with the help of an advisory committee, decides which projects will be programmed and placed on the Statewide Transportation Improvement Program (STIP). Applications are accepted in an annual cycle for the limited funds available to UDOT for such projects. Information and Applications for the current cycle can be found on UDOT's homepage @ www.udot.utah.gov, tab on "Doing Business" select "Planning and

Programming”, here you will find a sub-topic entitled “Transportation Enhancement Program”. Applications must be received by the UDOT Program Development Office, on or before the specified date to be considered. Projects will compete on a statewide basis.

4.4 Transportation Corridor Preservation

Transportation Corridor Preservation will be introduced as a method of helping Duchesne’s Community Transportation Plan. This section will define what Corridor Preservation is and ways to use it to help the Community Transportation Plan succeed for the City.

4.4.1 Definition

Transportation Corridor Preservation is the reserving of land for use in building roadways that will function now and can be expanded at a later date. It is a planning tool that will reduce future hardships on the public and the city. The land along the corridor is protected for building the roadway and maintaining the right-of-way for future expansion by a variety of methods, some of which will be discussed here.

4.4.2 Corridor Preservation Techniques

There are three main ways that a transportation corridor can be preserved. The three ways are acquisition, police powers, and voluntary agreements and government inducements. Under each of these are many sub-categories. The main methods will be discussed here, with a listing of some of the sub-categories.

4.4.2.1 Acquisition

One way to preserve a transportation corridor is to acquire the property outright. The property acquired can be developed or undeveloped. When the city is able to acquire undeveloped property, the city has the ability to build without greatly impacting the public. On the other hand, acquiring developed land can be very expensive and can create a negative image for the City. Acquisition of land should be the last resort in any of the cases for Transportation Corridor Preservation. The following is a list of some ways that land can be acquired.

- Development Easements
- Public Land Exchanges
- Private Land Trusts
- Advance Purchase and Eminent Domain
- Hardship Acquisition
- Purchase Options

4.4.2.2 Exercise of Police Powers

Police powers are those ordinances that are enacted by a municipality in order to control some of the aspects of the community. There are ordinances that can be helpful in preserving corridors for the Community Transportation Plan. Many of the

ordinances that can be used for corridor preservation are for future developments in the community. These can be controversial, but can be initially less intrusive.

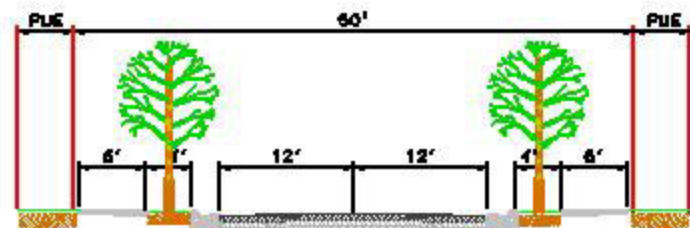
- Impact Fees and Exactions
- Setback Ordinances
- Official Maps or Maps of Reservation
- Adequate Public Facilities and Concurrency Requirements

4.4.2.3 Voluntary Agreements and Governmental Inducements

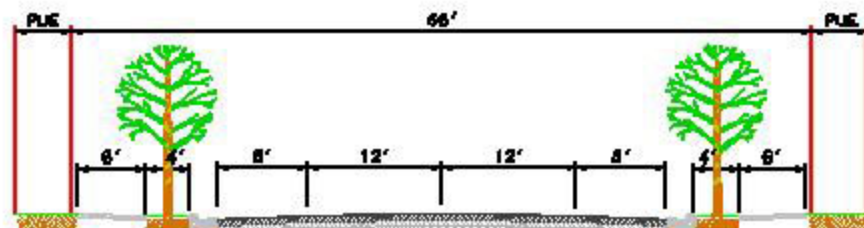
Voluntary agreements and governmental inducements rely on the good will of both the developers and the municipality. Many times it is a give and take situation where both parties could benefit in the end. The developer will likely have a better-developed area and the municipality will be able to preserve the corridor for transportation in and around the development. Listed below are some of the voluntary agreements and governmental inducements that can be used in order to preserve transportation corridors in the city limits.

- Voluntary Platting
- Transfer of Development Rights
- Tax Abatement
- Agricultural Zoning

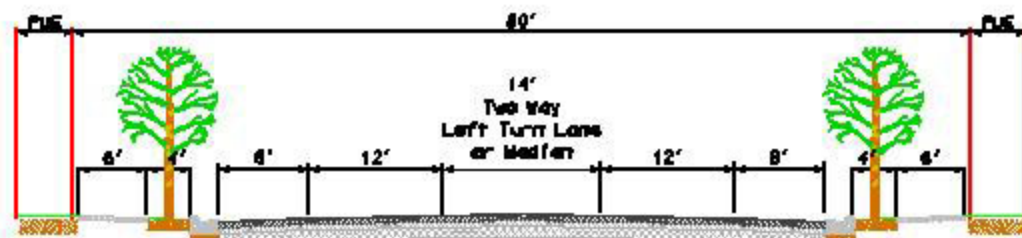
Each of these methods has its place, but there is an order that any government should try to use. Voluntary agreements and government inducements should be used, if possible, before any police powers are used. Police powers should be tried before acquisition is sought. UDOT has developed a toolkit to aid in corridor preservation techniques. This toolkit contains references to Utah code and examples of how the techniques have been used in the past.



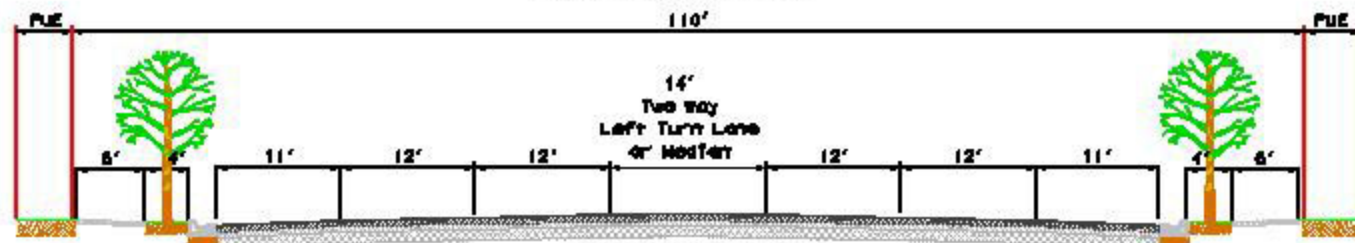
Two-Lane Cross Section
24 feet MAXIMUM ASPHALT WIDTH



Two Lane Cross Section
With Shoulders
Spaced between Arterials



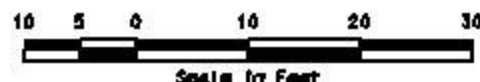
Three Lane Cross Section
With Shoulder
Spaced between Arterials



Five Lane Cross Section
With Shoulders
Minimum spacing approximately 1/4 mile

Notes:

1. Shoulder Dimension varies from 4' to 8' (See UDOT Std. Dev. 011 Note 3)
2. Public Utility Easement (PUE) dimension varies from 2.5' to 12' Typical
3. Shoulder Dimensions:
on 60' ROW - varies from 8' to 12'
on 110' ROW - varies from 10' to 12'
See AASHTO & Policy on Geometric Design of Highways and Streets



**Suggested
Typical Cross Section**

Revised: September 16, 2004

5. Transportation Improvement Projects

5.1 Current Statewide Transportation Improvement Program (2005-2009 STIP)

At the present time there is two projects under consideration in the Duchesne City area Currently in the STIP.

- Bridge Replacement # 03051A; 400 South over Strawberry River.
- Bridge Rehabilitation #C-560 on US-40 over Starvation Reservoir.

Also, this project is currently listed on the State of Utah's Long Range Plan, Utah Transportation 2030:

- Safety/Bridge Project on Main Street (US-40) in Duchesne.
- Safety/Reconstruction Project on SR-191 from Jones Hollow Road to US-40 (Main Street in Duchesne).
- Duchesne Municipal-Runway, Apron, Taxiway Reconstruction.
- Future-Variable Message Signs, Highway Advisory Radio & Road Weather Information Systems.

5.2 Recommended Projects

The following list identifies the seven projects that have been identified as having the highest priority to the Duchesne City Transportation Advisory Committee. These needs were identified through a series of meetings where the TAC identified the needs and set priorities for projects.

- Regional ATV Study
- Bridge Replacement on SR-87 over the Duchesne River
- Regional Drainage Study
- Sidewalks on Routes to Schools
- Signal Warrant Study for Intersection of US-40 & SR-87
- Speed Study at each entrance to City; US-40, SR-87 & US-191
- Construct Turn Pocket on US-40 at East End of Town for Business adjacent to Strawberry River

Additionally, many concerns and issues were identified which are found on the attached list.

Duchesne City Transportation Issues List and Cost Estimates

Route or Street Name	General Location Description	Description of Issue	Planning Level Cost Estimate
87	SR-87 over Duchesne River	Bridge over Duchesne River needs replacement	\$1,200,000
Local	City/Area wide	Bicycle and Pedestrian study and plan for Duchesne City	\$15,000
87	From Old Farm Road into town	New bicycle and pedestrian trail needed along SR-87	\$100,000
24220 West	Across Starvation Reservoir Dam and road to Dam	Pave Roadway across and to dam	\$200,000
87	SR-87 and 300 North	Move Crosswalk to south of 300 North from North Side	\$5,000
Local	City/Area wide	Drainage study of local roads and area	\$15,000
Local	City/Area wide	Curb, Gutter, and Sidewalk needed throughout community	\$50,000/block
40/87/191/L	City/Area wide	Safe Routes to School - Sidewalks needed to schools	\$50,000/block
40/87	Intersection of US-40 and SR-87	Signal Warrant Study/New Signal	\$150,000
40/87/191	Enterances into Duchesne	Speed Studies for each entrance into town	\$20,000
40	US-40 and Industrial Park	Turn Pockets for Enterances into Industrial Area	\$100,000
Local	City/County	Public Transportation (Bus Linking Uintah Basin to Other Areas)	\$0
Local	City/Area wide	OHV/ATV Study and Plan	\$15,000
40	US-40 east of SR-87	Sign Needed Indicating Starvation Reservoir for WB Traffic	\$1,000
191	Indian Canyon Scenic Byway	Develop Indian Canyon Scenic Byway from Carbon to Duchesne	Volunteer Work
6/191	US-6 East and West Bound before US-191	Warning Sign Indication that US-191 is not a Proper Truck Route	\$10,000
40/87/191	Enterances into Duchesne	Engine Brake/Noise Ordinance Signs Placed at Entrances	\$10,000
			\$1,841,000

5.3 Revenue Summary

5.3.1 Federal and State Participation

Federal and State participation is important for the success of implementing these projects. UDOT needs to see the Transportation Master Plan so that they understand what the City wants to do with its transportation system. UDOT can then weigh the priorities of the city against the rest of the state. It is important for Duchesne City to promote projects that can be placed on UDOT's five-year Statewide Transportation Improvement Program (STIP) as soon as possible. The process for placing projects into the STIP and funding of these projects can be found at UDOT's homepage @ www.udot.utah.gov, tab on "Doing Business" select the tab for "Planning and Programming" here there is a subtopic entitled "Statewide Transportation Improvement Program (STIP)" that describes this program in detail. Additionally coordination with UDOT's Region Director and Planning Engineer will be practical.

5.3.2 City Participation

The City will fund the local Duchesne City projects. The local match component and partnering opportunities vary by the funding source.

5.4 Other Potential Funding

Previous sections of this chapter show significant shortfalls projected for the short-range and long-range programs. The following options may be available to help offset all or part of the anticipated shortfalls:

- Increased transportation impact fees.
- Increased general fund allocation to transportation projects.
- General obligation bonds repaid with property tax levies.
- Increased participation by developers, including cooperative programs and incentives.
- Special improvement districts (SIDs), whereby adjacent property owners are assessed portions of the project cost.
- Sales or other tax increase.
- State funding for improvements on the county roadway system.
- Increased gas tax, which would have to be approved by the State Legislature.
- Federal-aid available under one of the programs provided in the federal transportation bill (TEA-21 is the current bill; The next Federal Transportation Bill will likely be passed in late 2005).

Increased general fund allocation means that General Funds must be diverted from other governmental services and/or programs. General obligation bonds provide initial capital for transportation improvement projects but add to the debt service of the governmental agency. One way to avoid increased taxes needed to retire the debt is to sell bonds repaid with a portion of the municipalities' State Class monies for a certain number of years.

Participation by private developers provides a promising funding mechanism for new projects. Developers can contribute to transportation projects by constructing on-site improvements along their site frontage and by paying development fees. Municipalities commonly require developers to dedicate right-of-way and widen streets along the site frontage. A negative side of the on-site improvements is that the streets are improved in pieces. If there are not several developers adjacent to one another at the same time, a continuous improved road is not provided. One way to overcome this problem is for the jurisdiction to construct the street and charge the developers their share when they develop their property.

Another way developers can participate is through development fees. The fees would be based on the additional improvements required to accommodate the new development and would be proportioned among each development. The expenditure of additional funds provided by the fees would be subject to the City's spending limit. However, development fees are often a controversial issue and may or may not be an appropriate method of funding projects.